

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently Amended): A method of searching unstructured data stored in a
2 database, the method comprising:
3 storing a plurality of electronic records in a common repository of electronic
4 records in the database that provides an audit trail that cannot be altered or disabled by users
5 associated with the database, wherein each electronic record comprises unstructured data stored
6 in a character large-object (CLOB) format in a column of a table of the database;
7 generating a first graphical user interface and displaying the first graphical user
8 interface on a display device, the first graphical user interface configured to enable users to
9 identify one or more reference to sections of unstructured data within the plurality of electronic
10 records stored in the database as elements of security rules;
11 receiving information from a user via the first graphical user interface identifying
12 a reference to a section of unstructured data within an electronic record as an element of one or
13 more security rules;
14 generating the one or more security rules in response to the information from the
15 user input-identifying one or more elements the reference to a section of [[in]] unstructured data
16 within the electronic record as an element[[s]] of the one or more security rules;
17 creating a security protocol that protects the plurality of electronic records stored
18 in the database against unauthorized access based on the one or more security rules;
19 creating a query designed to identify a set of electronic records stored in the
20 database that meet criteria designated in the query;
21 prior to executing the query, modifying the query in accordance with the security
22 protocol to create a modified query that includes the reference to a section of unstructured data

23 within the electronic document identified by the user as an element of the one or more security
24 rules; and
25 running the modified query against the unstructured data of the plurality of
26 electronic records stored in the database.

1 2. (Currently Amended): The method of claim 1 further comprising:
2 generating a second graphical user interface and displaying the second graphical
3 user interface on the display device, the second graphical user interface configured to enable
4 users to identify one or more references to sections of unstructured data within the plurality of
5 electronic records stored in the database as elements of an intermediate index that indirectly
6 indexes into one or more of the sections of unstructured data within the plurality of electronic
7 records;
8 allowing receiving information from a user to identify via the second graphical
9 user interface identifying [[the]] one or more ~~elements~~ references to sections of in the
10 unstructured data of the electronic record as indexed elements of the intermediate index; and
11 allowing a user to generate generating the one or more security rules based on the
12 indexed elements of the intermediate index.

1 3. (Currently Amended): The method of claim 1 wherein access to electronic
2 records in the common repository is automatically granted unless the security protocol restricts
3 such access; and
4 wherein the security protocol comprises a plurality of security rules that restrict
5 access to the electronic records within the database based on content of one or more sections of
6 unstructured data within the electronic records whose corresponding references are identified as
7 elements of the plurality of security rules.

1 4. (Currently Amended): The method of claim 1 wherein access to electronic
2 records in the common repository is automatically denied unless the security protocol grants
3 such access; and

4 wherein the security protocol comprises a plurality of security rules that grant
5 access to the electronic record within the database based on content of one or more sections of
6 unstructured data within the electronic records whose corresponding references are identified as
7 elements of the plurality of security rules.

1 5. (Currently Amended): The method of claim 1 wherein the plurality of
2 electronic records are generated from multiple data sources prior to committing a database
3 transaction to the database and in response to intercepting data from the non-committed database
4 transaction.

1 6. (Currently Amended): The method of claim 5 wherein one or more fields of
2 an electronic record in the plurality of electronic records are filled with XML data based on a
3 predefined mapping of the fields to the multiple data sources.

7. (Canceled)

1 8. (Previously Presented): The method of claim 1 wherein the unstructured data
2 comprises well-formed XML documents stored within the column of the table stored in the
3 database.

1 9. (Original): The method of claim 1 further comprising allowing a user to
2 enable and disable the security protocol.

1 10. (Currently Amended): A computer system for searching unstructured data
2 stored in a database, the computer system comprising:
3 a processor;
4 a database; and
5 a computer-readable memory coupled to the processor, the computer-readable
6 memory configured to store a computer program;
7 wherein the processor is operative with the computer program to:

(i) store a plurality of electronic records in a common repository of electronic records in the database that provides an audit trail that cannot be altered or disabled by users associated with the database, wherein each electronic record comprises unstructured data stored in a character large-object (CLOB) format in a column of a table of the database;

generate a first graphical user interface and displaying the first graphical user interface on a display device, the first graphical user interface configured to enable a user to identify one or more reference to sections of unstructured data within the plurality of electronic records stored in the database as elements of security rules;

receive information from a user via the first graphical user interface identifying a reference to a section of unstructured data within an electronic record as an element of one or more security rules;

(ii) generate [[a]] one or more security rules in response to the information from the user input-identifying one or more elements the reference to a section of [[in]] unstructured data within the electronic record as an element[[s]] of the one or more security rules;

(iii) create a security protocol that protects the plurality of electronic records stored in the database against unauthorized access to the unstructured data within each electronic record based on the one or more security rules;

(iv) create a query designed to identify a set of electronic records stored in the database that meet criteria designated in the query;

(v) modify the query in accordance with the security protocol to create a modified query prior to executing the query that includes the reference to a section of unstructured data within the electronic document identified by the user as an element of the one or more security rules; and

(vi) run the modified query against the unstructured data of the plurality of electronic records stored in the database.

1 11. (Currently Amended): The computer system of claim 10 wherein the
2 processor is further operative with the computer program to;
3 generate a second graphical user interface and displaying the second graphical
4 user interface on the display device, the second graphical user interface configured to enable a
5 user to identify one or more references to sections of unstructured data within the plurality of
6 electronic records stored in the database as elements of an intermediate index that indirectly
7 indexes into one or more of the sections of unstructured data within the plurality of electronic
8 records;

9 allow receive information from a user to identify via the second graphical user
10 interface identifying [[the]] one or more ~~elements~~ references to sections of ~~in the~~ unstructured
11 data of the electronic record as indexed elements of the intermediate index; and

12 allow a user to generate the one or more security rules based on the indexed
13 elements of the intermediate index.

1 12. (Currently Amended): The computer system of claim 10 wherein the
2 processor is further operative with the computer program to;
3 automatically grant access to electronic records in the database unless the security
4 protocol restricts such access; and

5 wherein the security protocol comprises a plurality of security rules that restrict
6 access to the electronic records within the database based on content of one or more sections of
7 unstructured data within the electronic records whose corresponding references are identified as
8 elements of the plurality of security rules.

1 13. (Currently Amended): The computer system of claim 10 wherein the
2 processor is further operative with the computer program to;
3 automatically deny access to electronic records in the database unless the security
4 protocol grants such access; and

5 wherein the security protocol comprises a plurality of security rules that grant
6 access to the electronic records within the database based on content of one or more sections of
7 unstructured data within the electronic records whose corresponding references are identified as
8 elements of the plurality of security rules.

1 14. (Currently Amended): The computer system of claim 10 wherein the
2 plurality of electronic records are generated from multiple data sources prior to committing a
3 database transaction to the database and in response to intercepting data from the non-committed
4 database transaction.

1 15. (Currently Amended): The computer system of claim 14 wherein one or
2 more fields of an electronic record in the plurality of electronic records are filled with XML data
3 based on a predefined mapping of the fields to the multiple data sources.

16. (Canceled)

1 17. (Currently Amended): The computer system of claim ~~[[16]]~~ 10 wherein the
2 unstructured data comprises well-formed XML documents stored within the column of the table
3 stored in the database.

1 18. (Currently Amended): A computer program product having a computer-
2 readable storage medium storing a set of code modules which when executed by a processor of a
3 computer system cause the processor to search unstructured data stored in a database, the
4 computer program product comprising:

5 code for storing a plurality of electronic records in a common repository of
6 electronic records in the database that provides an audit trail that cannot be altered or disabled by
7 users associated with the database , wherein each electronic record comprises unstructured data
8 stored in a character large-object (CLOB) format in a column of a table of the database;
9 code for generating a first graphical user interface and displaying the first
10 graphical user interface on a display device, the first graphical user interface configured to

enable a user to identify one or more reference to sections of unstructured data within the plurality of electronic records stored in the database as elements of security rules;
code for receiving information from a user via the first graphical user interface identifying a reference to a section of unstructured data within an electronic record as an element of one or more security rules;
code for generating the one or more security rules in response to the information from the user input-identifying one or more elements the reference to a section of [[in]] unstructured data within the electronic record as an element[[s]] of the one or more security rules;
code for creating a security protocol that protects the plurality of electronic records stored in the database against unauthorized access based on the one or more security rules;
code for creating a query designed to identify a set of electronic records stored in the database that meet criteria designated in the query;
code for modifying the query in accordance with the security protocol to create a modified query prior to executing the query, the modified query including the reference to a section of unstructured data within the electronic document identified by the user as an element of the one or more security rules; and
code for running the modified query against the unstructured data of the plurality of electronic records stored in the database.

19. (Currently Amended): The computer program product of claim 18 further comprising:
code for generating a second graphical user interface and displaying the second graphical user interface on the display device, the second graphical user interface configured to enable a user to identify one or more references to sections of unstructured data within the plurality of electronic records stored in the database as elements of an intermediate index that indirectly indexes into one or more of the sections of unstructured data within the plurality of electronic records;

code for ~~allowing receiving information from~~ a user ~~to identify via the second~~
~~graphical user interface identifying [[the]] one or more elements references to sections of in the~~
~~unstructured data of the electronic record as indexed elements of the intermediate index;~~ and
code for ~~allowing a user to generate~~ generating the one or more security rules
based on the indexed elements of the intermediate index.

20. (Currently Amended): The computer program product of claim ~~[[19]]~~ 18
further comprising:
code for automatically granting access to electronic records in the database unless
the security protocol restricts such access~~[[,]]~~;
wherein the security protocol comprises a plurality of security rules that restrict
access to the electronic records within the database based on content of one or more sections of
unstructured data within the electronic records whose corresponding references are identified as
elements of the plurality of security rules.

21. (Currently Amended): The computer program product of claim ~~[[19]]~~ 18
further comprising:
code for automatically denying access to electronic records in the database unless
the security protocol grants such access~~[[,]]~~;
wherein the security protocol comprises a plurality of security rules that grant
access to the electronic records within the database based on content of one or more sections of
unstructured data within the electronic records whose corresponding references are identified as
elements of the plurality of security rules.

22. (Currently Amended): The computer program product of claim 18 wherein
the plurality of electronic records are generated from multiple data sources prior to committing a
database transaction to the database and in response to intercepting data from the non-committed
database transaction.

23. (Previously Presented): The computer program product of claim 18 wherein one or more fields of an electronic record in the plurality of electronic records are filled with XML data based on a predefined mapping of the fields to multiple data sources.

24. (Canceled)

25. (Previously Presented): The computer program product of claim 18 wherein the unstructured data comprises well-formed XML documents stored within the column of the table stored in the database.

26. (Currently Amended): A method for searching electronic records stored in a common repository in a database that provides an audit trail that cannot be altered or disabled by users associated with the database, wherein each electronic record comprises a well-formed XML document stored in a character large-object (CLOB) format in a column of a table of the database, the method comprising:

displaying a first graphical user interface on a display device, the first graphical user interface configured to enable users to designate XML tags within XML documents associated with the plurality of electronic records stored in the database for use as secure elements of security rules;

receiving input via the first graphical user interface identifying an XML tag element within at least one an XML document associated with a first electronic record as an security a secure element of a security rule;

displaying a second graphical user interface on the display device, the second graphical user interface configured to enable users to associate XML tags designated for use as secure elements with events;

receiving input via the second graphical user interface associating the XML tag within the XML document with a first event;

displaying a third graphical user interface on the display device, the third graphical user interface configured to enable users to create security rules for events;

20 receiving input via the third graphical user interface creating a security rule
21 identifying the first event and having the XML tag as a secure element;
22 generating a security protocol based on the security rule, the security protocol
23 protecting access to the first electronic record based on content within the XML document that
24 corresponds to the XML tag designated as a secure element of the security rule;
25 receiving a query designed to identify ~~XML documents~~ a set of electronic records
26 from the electronic records stored in the database that ~~meet~~ satisfy criteria designated in the
27 query;
28 prior to executing the query, modifying the query in accordance with the security
29 protocol to create a modified query that includes the XML tag from the security rule; and
30 generating information indicative of executing the modified query against the
31 electronic records stored in the database ~~at least one XML document.~~